

***Purpuricen* spp.** (Coleoptera: Cerambycidae)

Pest Alert and Preliminary Data Sheet

On Jan. 5, 2000, PPQ Port Operations issued a notice to ports about adult longhorned beetles in the genus *Purpuricen* that emerged from dried bamboo stakes from China in a nursery in St. Paul, MN. This pest alert verifies the quarantine status and provides taxonomic, distribution and biological information on these pests.

Identification. USDA, ARS, SEL identified the St. Paul interception as “*Purpuricen* sp., probably *spectabilis*”. (This means that the intercepted species is likely *spectabilis* but may be a different species in the genus.) The specialist noted that the genus needs taxonomic revision, and exotic adults cannot be conclusively identified to species, but they should be distinguishable from native U.S. species (S. Lingafelter, USDA, ARS, Systematic Entomology Laboratory, pers. commun., 1/4/2000).

Three species that occur in the northeastern U.S. are illustrated in color in Yanega (1996). Solomon (1995) describes the beetle and its biology, damage and range for two U.S. species, *P. dimidiatus* LeConte and *P. axillaris* Haldeman, and provides black and white photographs of *P. dimidiatus* and its damage. A species from Turkey, *P. nigronotatus*, is illustrated on the Internet at <http://members.tripod.com/hoskovec/purpnig.htm>. Species described in the literature reviewed are black usually with red, orange or yellow markings (Cherepanov 1988, Solomon 1995, Yanega 1996).

Quarantine status. Members of the genus *Purpuricen* (Coleoptera: Cerambycidae) not recognized as species occurring in the U.S. are classified as quarantine pests by PPQ. National Identification Services documented this finding in a pest categorization assessment on 1/4/2000. Information used to make this decision is presented below.

Distribution. Six species of the genus *Purpuricen* occur in the U.S., including, *P. axillaris* *P. humeralis* F. in the eastern states, *P. dimidiatus* in CA, *P. linsleyi* Chemsak and *P. opacus* Knull in TX (Chemsak & Linsley 1982), and an undescribed species known from Missouri (Yanega 1996). The genus is Holarctic, with 13 Palearctic species (Cherepanov 1988).

Interceptions. In addition to the recent St. Paul interception noted above, the PIN-309 database contains one record of an interception of one adult *Purpuricen* sp. from bundles of Chinese bamboo in 1992.

Hosts. For *P. spectabilis*, we found only one reference to hosts - an association with pear and Chinese date (China Agriculture Science Institute 1994). This is a listing that may represent a larval and/or adult beetle feeding record or merely a record of the beetle sitting on the plant. In China, six species in the genus are associated with fruit trees, including apple, pear and persimmon (China Agriculture Science Institute 1994). Species recorded from India and surrounding areas are associated with other hosts, including poplar (*P. indus*), *Pinus* and *Quercus* (*P. montanus*), and *Acacia*, *Dendrocalamus* and *Bambusa* (*P. sanguinolentus*) (Duffy 1968).

Purpuricenus pestifer larvae live in branches of apple and pear (Cherepanov 1988). In Europe and northern Asia, *P. kaehleri* (L.) was recorded as inhabiting shoots of drying and viable oak, elm, and choke-cherry, beech, chestnut, willow and other deciduous species. Of U.S. species, *P. axillaris* girdles branches of oak, hickory and chestnut, *P. humeralis* mines dead branches of numerous hardwoods, and *P. dimidiatus* infests scrub oaks and willow (Solomon 1995, Yanega 1996).

Biology (compiled from Cherepanov 1988, Solomon 1995, and Yanega 1996). *Purpuricenus* are described as shoot borers, borers or girdlers. Life cycle duration varies in the genus from one to three or more years. Some species infest live trees, while others are known from both live and dead hosts, dead hosts only, or their habits are unknown. Adult beetles fly from May or June to August in the U.S. and northern Asia. No information was found on spread potential. Larval tunnels can extend for 50-60 cm or more. The Eurasian species, *P. kaehleri*, overwinters as larvae, one larva to a tunnel (gallery), pupates in May-June before emerging in June-July.

Economic and environmental Impact. Solomon (1995) notes that the scrub oak hosts of *P. dimidiatus* become weakened and exhibit faded foliage and dead or dying branches, eventually depriving cover to animals and food to browsing domestic animals and wildlife in arid habitats. Considerable damage to swamp white oak resulted from infestations of *P. axillaris* in Pennsylvania (Solomon 1995).

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